

WHAT IS CLAIMED IS:

1. A lighting apparatus comprising:
a reflecting surface for reflecting light, formed on a circuit board;
an LED light source for emitting illumination light with a light-emitting diode,
5 mounted on a part of said reflecting surface; and
a reflector for reflecting ahead the light emitted from said LED light source,
mounted on said circuit board so as to surround said LED light source and have the
opened rear thereof closed by said reflecting surface.
2. The lighting apparatus according to claim 1, wherein said reflecting surface is
10 formed by gold-plating.
3. The lighting apparatus according to claim 1, wherein said LED light source is a
surface-mounted white light-emitting chip LED and is surface-mounted on said
reflecting surface.
4. The lighting apparatus according to claim 1, wherein said LED light source is
15 comprised of three types of LED light sources for emitting red light, green light and blue
light, and the LED light source for emitting the light in each color is radially placed.
5. The lighting apparatus according to claim 1, wherein an optical component for
expanding and flooding ahead the light emitted from said LED light source is placed on
said reflector.
- 20 6. A lighting apparatus having an LED light source for emitting illumination light
with a light-emitting diode, and a reflector for reflecting ahead the light emitted from
said LED light source, said reflector placed so as to surround the rear side and side
surface side of said LED light source, and
said LED light source is placed clear of an internal reflecting surface of said
25 reflector.

7. The lighting apparatus according to claim 6, wherein said LED light source is comprised of three types of LED light sources for emitting red light, green light and blue light, and the LED light source for emitting the light in each color is radially placed.

5 8. An electronic flash apparatus of a camera comprising the lighting apparatus of claim 6.

9. A camera comprising the lighting apparatus of claim 6.

10 10. The lighting apparatus according to claim 6, wherein said LED light source has a lead terminal, and said lead terminal is put through a hole provided on said reflector and is joined with a predetermined pad of a circuit board so as to mount said LED light source on said circuit board.

11. An electronic flash apparatus of a camera comprising the lighting apparatus of
15 claim 1.

12. A camera comprising the lighting apparatus of claim 1.

13. An electronic flash apparatus comprising:

20 a light-emitting portion having an LED light source for emitting illumination light with a light-emitting diode, and a reflector for reflecting ahead the light emitted from the LED light source; and

a lens for expanding and flooding ahead the light emitted from the light-emitting portion, placed in front of said light-emitting portion.

14. The electronic flash apparatus according to claim 13, wherein an optical element
25 for diffusing the light emitted from said LED light source is placed between said LED light source and said lens.

15. The electronic flash apparatus according to claim 14, wherein said optical component diffuses the light emitted from said LED light source and also converts it into predetermined color temperature.

5 16. The electronic flash apparatus according to claim 13, further comprising a movement device which relatively moves said light-emitting portion and said lens in an optical axis direction, and changes an irradiation angle of the light emitted from said lens by relatively moving said light-emitting portion and said lens in the optical axis direction with the movement device.

10 17. The electronic flash apparatus according to claim 14, further comprising a movement device which relatively moves said light-emitting portion and said lens in an optical axis direction, and changes an irradiation angle of the light emitted from said lens by relatively moving said light-emitting portion and said lens in the optical axis direction with the movement device.

15 18. The electronic flash apparatus according to claim 15, further comprising a movement device which relatively moves said light-emitting portion and said lens in an optical axis direction, and changes an irradiation angle of the light emitted from said lens by relatively moving said light-emitting portion and said lens in the optical axis direction
20 with the movement device.

19. The lighting apparatus according to claim 13, wherein said LED light source is comprised of three types of LED light sources for emitting red light, green light and blue light, and the LED light source for emitting the light in each color is radially placed.

25 20. A camera comprising:
a camera body; and
the electronic flash apparatus of claim 13 arranged in the camera body.